

METHODS AND APPARATUS FOR CHANNEL PREDICTION IN WIRELESS NETWORKS

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Abstract

Techniques and systems for channel prediction in wireless networks. A base station receives a succession of channel indicators from each of a plurality of mobile units, each channel indicator being received from each mobile unit once per timeslot. A channel predictor uses the channel indicators to generate a channel condition prediction for each mobile unit, the channel
10 condition prediction being based on a balanced estimate using the most recent channel condition indicator and the mean of the succession of channel indicators. A weight is computed based on a gradient of the succession channel indicator values and used to assign relative emphasis to the most recent channel condition indicator and the mean channel condition indicator in order to give greater emphasis to the most recent indicator during slowly changing conditions and greater
15 emphasis to the mean indicator during rapidly changing conditions.